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July 19, 2000

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Re: CC Docket No. 96-98 (*UNE Remand Proceeding*)  
Ex Parte Communication

Dear Ms Salas:

Over the past several months, the PACE Coalition<sup>1</sup> has made a number of filings in the above-captioned proceeding detailing the impairment to new entrants seeking to offer service to consumers and businesses with less than 20 analog lines caused by restrictions on the availability of the local switching unbundled network element ("UNE").<sup>2</sup> The focus of previous Coalition submissions has been on the additional costs that would be incurred by an entrant seeking to "hand-craft" analog service to an individual customer – costs that can be avoided by access to unbundled local switching (ULS). In the top 50 markets where large customers are concentrated,<sup>3</sup> however, the Coalition has shown that it may be possible to viably serve a

<sup>1</sup> The PACE (Promoting Active Competition Everywhere) Coalition was formed to establish the conditions necessary to support the widespread local competition envisioned by the Telecommunications Act of 1996, in particular for the average residential and small business consumer. PACE members include Birch Telecom, Z-Tel Communications, TALK.Com, Excel Communications, network intelligence, inc., InfoHighway Communications, and MCG Credit Corporation (an investment firm that finances local entry).

<sup>2</sup> See Letter from Genevieve Morelli to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 96-98, July 11, 2000.

<sup>3</sup> It is useful to note that while ILEC *regulatory* filings argue for expanding any restriction on ULS beyond the top 50 markets, ILEC *business* strategies reveal the conclusion that the top 50 MSAs form the *outer* boundary of a unique market layer. For instance, a core presumption of the SBC/Ameritech merger is that a "national market" of large business

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customer with more than 20 lines by first converting its traffic to digital format, then using a high-speed digital loop to connect the customer to an entrant-supplied local switch.

This hand-crafting -- i.e., reconfiguring the customer's loop, backhauling its traffic, reconnecting the loop to the entrant's switch, while coordinating the various steps needed to transfer the number to the new provider's equipment -- are collectively referred to as a "hot cut." The Coalition has previously emphasized the *quantitative* impairment created by the hot-cut process. The purpose of this letter is to discuss the *qualitative* problems created by "hot-cuts" and, just as importantly, explain how these concerns have influenced ILEC network design and CLEC market behavior.

### MANUAL PROVISIONING IS A RELIC OF A BYGONE ERA

To begin, it is useful to understand that the unnecessary costs and qualitative problems that result from manual provisioning are well understood in the telecommunications industry. For decades, telecommunications companies have endeavored to eliminate manual provisioning wherever possible through massive investment in systems and equipment to support automated provisioning systems. The very *existence* of this effort -- an effort that continues to this day -- is a testament to seriousness of the problems created by manual approaches.

A fundamental tenet of telecommunications engineering (actually, *all* engineering) is to avoid unnecessary manual activity. Manual activity is expensive and unavoidably unreliable -- a fact confirmed by the emphasis throughout our economy on replacing routine tasks with automated systems whenever, and wherever, possible. The manual hot-cut process should be seen as an exception to this principle, not a prerequisite for local competition.<sup>4</sup>

The manual "heart" of the hot-cut process is the physical rearrangement of copper lines at the Main Distribution Frame (MDF). Importantly, the MDF is one of the most congested areas of a central office. The distributing frame was introduced at the turn of the *last* century<sup>5</sup> because it made more efficient the highly manual process of organizing, testing and repairing wires as

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customers is addressable in the top 50 MSAs, while the Bell Atlantic/GTE merger assumes that the "national" market is even more concentrated in fewer cities. Given the paucity of competition in even these cities, there is no basis to expand any ULS restriction beyond the top 50 MSAs.

<sup>4</sup> Certainly, where hot-cuts are necessary to a particular entry strategy, the Commission should remain diligent that the process be made as efficient, reliable and cost-effective as possible. Our principal point, however, is that there is a large difference between relying on the hot-cut process *where necessary*, and *making necessary* the hot-cut as a prerequisite to entry. The former recognizes the process as a "necessary evil," while the latter makes the "evil necessary."

<sup>5</sup> The "distributing frame" was patented in 1893.

they came into the central office. As explained by noted telecommunications engineer Amos E. Joel:<sup>6</sup>

The invention of the MDF improved efficiency in the central office: Most obviously, arranging the wires in a more orderly fashion made it easier to maintain, test, and repair them. In addition, the MDF provided flexibility in connecting outside plant and wire center equipment ... Such a change of course involved manual labor, but in the early part of the century, manual work was common and was needed to provide much of the functionality that the network offered.<sup>7</sup>

Of course, the past 100 years has seen radical advancement in virtually every area of telecommunications, but the basic design of the MDF has remained largely unchanged. As a result, the operational design goal has been to move activities *away* from the MDF to where they could be automated, thereby creating a network that could be as software-defined as possible. As Mr. Joel explains:

One notable example of this transformation is in the reduction of work needed at the MDF. Cross-connections are no longer used to connect a particular loop with the directory number assigned to a particular port. Instead, the task of associating a particular directory number and set of services and features with a particular loop is made electronically via a software change in the relevant database in the switch. The cross-connection is usually left in place. Similarly, the task of disconnecting service for a customer no longer requires a craft visit to the MDF. Once again, a software change accomplishes that task.

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Having made a successful transition to a software-based intelligent network, it is difficult to endorse any hardware solution to a given network design problem if a software solution can be found.<sup>8</sup>

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<sup>6</sup> Mr. Joel's perspective on manual systems should be given significant weight. Mr. Joel, a graduate of the Massachusetts Institute of Technology, spent 43 years with Bell Telephone Laboratories and holds more than 70 patents. Mr. Joel has been awarded the New Jersey Research & Development Council's Outstanding Patent Award (1972), the IEEE Alexander Graham Bell Medal (1976), the Franklin Institute-Stuart Ballantine Medal (1981), the International Telecommunication Union Centenary Prize (1983), and the Columbian Medal (1984), the Kyoto Prize (1989), the Medal of Honour (1992), and the Charles E. Scribner Trophy (1992). In 1993, President Clinton presented Mr. Joel the United States' highest engineering award, the National Medal of Technology.

<sup>7</sup> Affidavit of Amos E. Joel, before the New York Public Service Commission, Case 98-C-0690, paragraph 27.

<sup>8</sup> *Id.*, paragraphs 37 and 41.

Said differently, the Commission should strive to minimize reliance on the hot-cut process, both to make the process more efficient when it is necessary (by reducing the number of unneeded hot-cuts), as well as to improve the overall efficiency of the network. Further, there should be little disagreement that manual provisioning results in impairment, for there has been a centuries-long process to eliminate it wherever possible. This effort would have been unnecessary if there were not significant problems that justified the investment to support automated provisioning.

#### **THE CONSEQUENCES OF MANUAL PROVISIONING**

To appreciate *why* the hot cut process so frequently degrades service quality and reliability, it is useful to first discuss the various manual steps that are necessary to its execution. Fundamentally, a hot-cut requires the coordinated achievement of two actions: (1) the customer's loop must be reconfigured to terminate on CLEC equipment connected to the CLEC's switch (the loop cut), and (2) software changes are needed to assure the appropriate routing of inbound calls (i.e., porting of the telephone number). These steps must occur in the appropriate sequence to minimize the time in which the customer's service is impaired during its transfer between carriers.

As the Commission is well aware, the efficacy of the hot cut process has been the subject of considerable controversy, particularly in the context of the Section 271 applications of Bell Atlantic and SBC for New York and Texas, respectively. It is not our intention here to assess blame, or to dispute the reliability of either carrier's systems or record on this issue. Rather, our point concerns the *systemic* frailty of an approach that is so dependent upon manual systems for its execution. Consider, for instance, the following steps used in SBC's coordinated hot-cut process:

**TABLE 1: THE COORDINATED HOT CUT PROCESS**

Step	Type of Activity
Pre-Installation Test Procedure	
- Entrant Confirms with SBC's LOC the scheduled date and time for the hot cut as provided in the FOC.	Manual
- SBC's LOC confirms order with frame technician who begins laying cross-connects on the MDF.	Manual
- SBC remotely tests the customer's circuit facility assignment and confirms dial tone and that CFA shows the same telephone number for the customer as on entrant order.	Manual
Cut-Over Procedure	
- Entrant technician calls SBC within 30 minutes of the scheduled time to authorize cut.	Manual
- SBC technician effects loop cutover.	Manual
- Entrant ports number by sending activate message to NPAC.	Manual/ Electronic

Even SBC recognizes the extreme manual nature of the hot cut process given the prevailing architecture of ILEC networks. In SBC's own words, the coordinated hot cut process is characterized by "manual hand holding"<sup>9</sup> – hand holding that constrains capacity and imposes costs.<sup>10</sup> Efficient conduct of the process is an objective the Commission should encourage, but there should be no doubt that the process *itself* contains a number of potential points of failure.

The complex nature of the hot cut process means customers are subject to service disruptions – disruptions that can only be minimized by *additional* complexity and human involvement. The customer disruption involves both a loss in service, the disconnection of calls underway, and the threat of an even longer period where inbound calls will not be successfully routed. Although the ILECs frequently recite these impediments in matter-of-fact tones<sup>11</sup> -- as

<sup>9</sup> Testimony of Mr. Royer, November 2, 1999, Texas Public Utility Commission Hearing Tr. at 171.

<sup>10</sup> Although SBC offers a less "coordinated" hot-cut process (Frame Due Time), this alternative is also a manual activity.

<sup>11</sup> E.g., Affidavit of Candy R. Conway, In the Matter of SBC Communications Inc. for Provision of In-Region InterLATA Services in Texas, Texas Public Utility Commission, CC Docket No. 00-4, para. 75:

On a flow-through migration request, the CLEC is responsible for notifying the end user that the migration will occur within a 60-minute interval beginning with the DFDT time. In addition, the CLEC must

*Continued*

though their acknowledgment renders them less relevant – what matters is the customer's *perception* of the CLEC's ability to provide quality service.

The Commission is well aware of the difficulties experienced by carriers that have attempted to offer services relying heavily on the hot-cut process. Attached to this letter are the various affidavits filed by Sarah DeYoung on behalf of AT&T detailing that carrier's experience with SBC in Texas.<sup>12</sup> Although many of the specific metrics in the AT&T affidavits are proprietary, the generic nature of the problems experienced by AT&T are well documented.<sup>13</sup> Qualitative impairments include extended (and unexpected) service outages, customer confusion and dissatisfaction.

Given the concerns detailed by the AT&T affidavits, the Commission should not be surprised that the CLEC industry generally focuses on serving larger (which is to say, digital) customers that are accustomed to provisioning activities that are manually oriented. In the analog market, however, manual provisioning has largely been engineered out of the system, and forcing entrants to endure a hot-cut process that the incumbent avoids presents a substantial competitive barrier.

Although the AT&T affidavits document the problems experienced by a carrier that tried to overcome the difficulties of the hot-cut process, this is not the only evidence of the problem. Significantly, some entrants have tried to compete using analog loops and later *abandoned* the approach, while many others understood (without direct experience) that the wiser course would be to *avoid* the problem altogether by focusing on digital customers from the start. Attachment 5 is the Affidavit of Rick Tidwell, Birch Telecom's Vice President – Regulatory Relations. As the Tidwell Affidavit explains, Birch Telecom initially offered services to customers with analog loops by migrating these loops to one of its three switches. However, the delay, confusion and service degradation experienced through the process ultimately convinced Birch that it made sense to serve only digital customers with DS-1 needs through its own switching capacity. This conclusion is not unique to Birch Telecom. Many entrants have reached the same conclusion – either through their own experience or from the examples of Birch and others.

Furthermore, Attachment 6 is an affidavit from Peter Karoczkai, InfoHighway Communications' Senior Vice President – Sales and Marketing. InfoHighway leases switch capacity to serve its customers in New York. As the Karoczkai Affidavit confirms, alternative

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advise the end user that the migration will cause a temporary loss of service, and any calls in progress at that time will be interrupted.

<sup>12</sup> See Declaration of Sarah DeYoung on behalf of AT&T Corporation (attached here as Attachment 1); Reply Declaration of Sarah DeYount (Attachment 2); Supplemental Joint Declaration of Sarah DeYoung and Mark Van De Water (Attachment 3); and Supplemental Joint Reply Declaration of Sarah DeYoung and Mark Van De Water (Attachment 4).

<sup>13</sup> The Coalition has requested and AT&T has agreed to file the proprietary versions of the DeYoung affidavits in the record of this proceeding.

local switching capacity in the New York market – the most *advanced* local market in the nation – is only practically available to serve customers with above DS-1 volumes.

Similarly, Focal Communications Corporation (“Focal”) has informed the Commission that it “...concentrates exclusively on customers that have a current need for DS1 communications functionality or higher.”<sup>14</sup> In addition, the flagship product that Intermedia Communications offers over its own facilities (unifiedvoice.net<sup>SM</sup>) is designed for customers requiring DS-1 connectivity.<sup>15</sup>

Finally, WorldCom has indicated that its facilities-based strategy is used to serve digital customers with either T-1 or ISDN-PRI needs, connected to digital PBXs that typically aggregate at least 30 analog lines.<sup>16</sup> Although the WorldCom filing concludes with the *claim* that Worldcom would extend service to smaller customers if granted unrestricted access to EELs, this claim is contradicted by the logic of the filing<sup>17</sup> and Worldcom’s actual market behavior where unrestricted EELs are available.<sup>18</sup> The Coalition agrees with WorldCom that unrestricted access to EELs would expand the competitive opportunity to serve high-speed *digital* customers by incrementally increasing the reach of competitive networks. But there is no reason to conclude

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<sup>14</sup> Letter from Richard Metzger and Patrick Donovan to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 96-98, May 19, 2000, page 2.

<sup>15</sup> See [www.intermedia.com/products/voice/uv-net.html](http://www.intermedia.com/products/voice/uv-net.html).

<sup>16</sup> Letter from Chuck Goldfarb to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 96-98, June 21, 2000, page 2.

<sup>17</sup> The core demonstration of WorldCom’s submission is that facilities-based competition is (at this point) effectively limited to digital customers. As WorldCom itself explains:

WorldCom cannot provide analog trunk service to the end user without assuming the cost of placing in its collocation spaces expensive customer terminating equipment used to convert digital signals to analog signals.

Goldfarb Letter, page 3.

WorldCom never explains how unrestricted access to high-speed DS-1 EELs would reduce (much less eliminate) this substantial barrier. Rather, WorldCom confirms the principal conclusion of the Birch Analysis -- that is, the cost to convert a customer’s analog traffic to digital format limits service (with today’s technology) to customers with at least 20 lines.

<sup>18</sup> WorldCom acknowledges that unrestricted EELs have been available to it in Florida. In other words, WorldCom has already confronted the circumstance that it claims would enable it to support smaller customers (i.e., unrestricted access to EELs), at least in that State. Despite this opportunity, however, WorldCom’s subsequent complaint proceeding against BellSouth to enforce its right to UNE prices (FPSC Docket 98-1121-TP) was limited to DS-1 EELs, confirming once again that facilities-based competition is effectively limited to this market segment.

that EELs would reduce, in any manner, the economic crossover at which it becomes feasible to migrate an analog customer to digital service.<sup>19</sup>

Both SBC and US WEST have claimed that the crossover between DS0 and DS1 loops is far below 20 lines.<sup>20</sup> Although these companies have not provided an explanation for their conclusion, it is obvious on its face that neither company's crossover analysis included the cost to convert a customer's analog service to digital format. Of course, these costs are a necessary prerequisite to using digital transport, and play a prominent role in determining the *economic* crossover between analog and digital service. The Commission should give no weight to the crossovers calculated by these ILECs because they represent a technologically impossible configuration – i.e., a configuration where the customer's analog loop service is mysteriously carried over digital facilities without incurring any conversion cost.

Significantly, while the future may be defined in digital terms, the present is dominated by analog service. Table 2 documents the dominance of analog equipment on customer premises.

**Table 2: Measuring the Analog Market<sup>21</sup>**  
(lines in thousands)

Holding Company	Distribution of Analog Lines				Total Switched Lines	Percent Analog <sup>22</sup>
	Main	PBX	Centrex	Total		
SBC	48,209	1,618	5,441	55,268	58,384	94.7%
Bell Atlantic	51,478	1,473	4,542	57,493	62,526	92.0%
BellSouth	21,767	902	545	23,213	24,148	96.1%
US WEST	14,506	307	1,365	16,177	17,449	92.7%
Total	135,960	4,299	11,892	152,152	162,506	93.6%

Given the preponderance of the evidence that the analog market is not currently open to facilities-based entry, it should not be surprising that the Commission's Local Competition Report confirms that UNE loops comprise a negligible part of the market. Table 3 summarizes the level of UNE loop penetration (at the holding company level) provided in the Commission's

<sup>19</sup> Indeed, as the Coalition has previously shown, the economic crossover increases to serve a customer using the EEL configuration because of the additional costs of the EEL itself.

<sup>20</sup> See Letter from Gary Phillips to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 96-98, June 13, 2000; Letter from Melissa E. Newman to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 96-98, June 12, 2000.

<sup>21</sup> Source: 1999 ARMIS 43-08, Table II, Switched Access Lines by Technology.

<sup>22</sup> Potentially understates the percentage of analog lines because it assumes all lines classified as "other switched lines" are digital.



most recent report.<sup>23</sup> As Table 3 shows, not only have UNE loops failed to achieve a significant share of the *existing* market (with a national share of less than ¼ of 1%), they are not even having a large impact on ILEC *growth*. From 1997 to 1998, UNE loop growth was less than 4% of the growth in switched lines enjoyed by the ILECs.

**Table 3: UNE-Loop Market Penetration**  
(b lines measured in thousands)

Holding Company <sup>24</sup>	ILEC Lines	UNE Loops	UNE-Loop Market Share	Annual Growth (1997-1998)	
				ILEC Lines	UNE Loops
SBC	57,832	167	0.289%	1,631	101
Bell Atlantic	58,437	114	0.195%	2,637	69
BellSouth	24,104	41	0.170%	950	32
US West	16,695	8	0.048%	565	7
Sprint	7,545	30	0.398%	363	19
Total	147,612	344	0.233%	5,543	219

<sup>23</sup> Statistics derived from Table 9.4, Trends in Telephone Service, Industry Analysis Division, Federal Communications Commission, April 10, 2000.

<sup>24</sup> Holding company statistics aggregated to reflect SBC/Ameritech and Bell Atlantic/GTE mergers.

Ms. Roman Salas  
July 19, 2000  
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KELLEY DRYE & WARREN LLP

## CONCLUSION

The competitive promise of the Telecommunications Act of 1996 was not intended to be limited to the digital customer. As the PACE Coalition has explained – and evidence from New York and Texas confirms – competition is possible for the smaller analog customer, but only with access to unbundled local switching. The economic crossover to high-speed digital services – arrangements that justify the complexity and cost of manual provisioning – has been shown to be 20 lines. Accordingly, the Commission should increase the restriction on unbundled local switching to match the point at which impairment diminishes – i.e., for customers with more than 20 lines in the top 50 MSAs.

Sincerely,

  
Genevieve Morelli

## Attachments

cc: Larry Strickling  
Dorothy Attwood  
Jake Jennings  
Jonathan Reel  
Christopher Libertelli

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

CC Docket No. 00-4

In the Matter of )  
 )  
Application by SBC Communications Inc., )  
Southwestern Bell Telephone Company, and )  
Southwestern Bell Communications Services, )  
Inc. d/b/a Southwestern Bell Long Distance )  
for Provision of In-Region, InterLATA )  
Services in Texas )

**DECLARATION OF SARAH DeYOUNG**

**ON BEHALF OF**

**AT&T CORPORATION**

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for Provision of In-Region, InterLATA	)	
Services in Texas	)	

**DECLARATION OF SARAH DeYOUNG  
ON BEHALF OF  
AT&T CORPORATION**

1. My name is Sarah DeYoung. I am Division Manager – Local Services for AT&T's Southwestern/Pacific Region Local Services and Access Management Organization. In my position, I am responsible for the business relationship with SBC Communications Inc. ("SBC") as it relates to supporting AT&T's plans for entering the local telephone service market. Those responsibilities include negotiating with Southwestern Bell Telephone Company ("SWBT") -- as well as other SBC-owned regional telephone carriers, such as Pacific Bell and Southern New England Telephone -- to facilitate such local market entry by AT&T.

2. I have been with AT&T since 1982. In the course of my career, I have worked in various local exchange supplier management positions and in a wide variety of engineering and finance positions. In 1995, I managed AT&T's Total Services Resale and Loop Resale operational discussions with Ameritech. In 1996, I was Program

Manager - Negotiations Support in AT&T's Central States region. In that position, I was responsible for supporting the executive team that led AT&T's interconnection negotiations with Ameritech and provided subject matter expertise on a number of local issues. In addition, since late 1996 until last April, I also acted as AT&T's primary contact with Pacific Bell on all operations support system and operational issues associated with AT&T's market entry in the state of California.

3. In my current position, I have, among other matters, focused on SWBT's processes for performing so-called unbundled loop hot cuts ("UNE Loop hot cuts")<sup>1</sup> and the related issue of SWBT's ability to perform such hot cuts in a timely and reliable manner, at acceptable quality levels and in reasonable commercial volumes.

4. With respect to these issues, I am actively involved with various SWBT teams that are responsible for working with AT&T as a local service provider. Among the teams or organizations at SWBT with which I (and members of my staff) have frequent – sometimes daily – contact are:

- SWBT's account team assigned to AT&T;
- SWBT systems representatives;
- SWBT's Local Service Centers and Local Operations Centers; and
- SWBT project teams implementing various system, operational and engineering changes at SWBT.

My exchanges with SWBT relating specifically to UNE Loops have included, among other things, developing provisioning process flows; negotiating operational agreements;

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<sup>1</sup> As described more fully herein, hot cut loop provisioning is the coordinated transfer of an unbundled loop from SWBT to a Competitive Local Exchange Carrier ("CLEC") along with the porting of the customer's existing telephone number so that the customer can retain his existing telephone number when obtaining service from the CLEC.



conducting "root cause" analyses of recurring operational problems hindering AT&T's ability to obtain access to UNE Loop hot cuts; identifying performance improvement plans and reconciling performance measure data -- activities which are all directed to minimizing the period of service outage customers experience on a hot cut and reducing the risk of unexpected service outages, thereby facilitating AT&T's switch-based entry into the Texas local service market.

5. I am also AT&T's principal point of contact with the Texas Public Utilities Commission ("TPUC") and its staff in addressing issues related to SWBT's UNE Loop hot cut provisioning performance in Texas. In this role, I have testified before the TPUC in its Project No. 16251 related to the investigation of SWBT's entry into the long distance market as well as other related TPUC proceedings.

## **I. INTRODUCTION AND SUMMARY**

6. As the Declaration of Cliff Holtz explains more fully, AT&T plans to provide local service to primarily small business customers in Texas through a combination of its own facilities and unbundled loops from SWBT. AT&T has invested large amounts in facilities and infrastructure to serve this segment of the market. In order to make use of these facilities to offer the high-quality service that these business customers demand, AT&T must have timely, accurate and reliable hot cut loop provisioning from SWBT so that AT&T can seamlessly transfer large numbers of customers to AT&T's service.

7. SWBT is legally required to provide AT&T with UNE Loop hot cuts. Pursuant to the Federal Telecommunications Act of 1996 ("FTA"), prior to obtaining any relief under Section 271, SWBT must show that it provides nondiscriminatory access to unbundled loops and to number portability on terms and

conditions that are just and reasonable. 47 U.S.C. §§ 251(c)(3); 271(c)(2)(B)(iv),(xi). This obligation includes the requirement that CLECs have access to various functions of SWBT's operations support systems ("OSS") in order to obtain loops in a timely and efficient manner. Bell Atlantic ¶ 270.<sup>2</sup> Moreover, in its Bell Atlantic Order, the Federal Communications Commission (hereafter the "Commission" or "FCC") made clear that a Bell Operating Company ("BOC") must demonstrate that "it provisions hot cuts in sufficient quantities, at an acceptable level of quality, and with a minimum of service disruption, thereby offering competitors a meaningful opportunity to compete in the local exchange market." Id. at ¶ 291.<sup>3</sup>

8. Unbundled local loops and the associated hot cuts are the principal means by which CLECs will compete for the small and medium size business market, a market that AT&T estimates consists of more than 1.4 million lines in Texas. As described in the accompanying Declaration of Clifford Holtz, AT&T made the business decision to use its own switches and collocate in SWBT central offices to offer switch-based, UNE Loop service in the business market.<sup>4</sup>

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<sup>2</sup> In the Matter of Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of New York, CC Docket No. 99-295, Memorandum Opinion and Order, FCC 99-285 (rel. Dec. 22, 1999)(hereafter "Bell Atlantic").

<sup>3</sup> The Commission has articulated a similar standard for UNE Loop hot cuts in prior orders, holding that a BOC "must demonstrate that it can coordinate number portability with loop cutovers in a reasonable amount of time and with minimum service disruption." In the Matter of Application of BellSouth Corporation, et al. for Provision of In-Region, InterLATA Services in Louisiana, CC Docket No. 98-121, Memorandum Opinion and Order, FCC 98-271 (rel. Oct. 13, 1998)(hereafter "Louisiana II"), ¶ 279.

<sup>4</sup> AT&T is providing its switch-based local service through its subsidiary, TCG. For purposes of my declaration, my discussion of AT&T's experience in providing switch-based local service through UNE Loop hot cuts is intended to refer to the activities of TCG.

9. As Mr. Holtz explains in his Declaration, AT&T has invested XXXXXXXXX to provide service to small and medium-sized businesses in Texas using unbundled loops. For example, AT&T has installed XXXXXXXX switches in Texas and will add XXXXXXXXX local switches by mid-year. In addition, AT&T has collocated in XXXXXXXX Texas central offices, and plans to be collocated XXXXXXXXXX Texas central offices within the XXXXXXXXXXXXXXXXXXXX. AT&T is presently submitting orders for, on average, XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX loops per month.<sup>5</sup> AT&T would like to substantially increase its marketing of this service, but will only do so if it believes that it can offer customers high quality, efficient service. At present, however, AT&T cannot be assured of its ability to offer such a product because SWBT has yet to demonstrate that it can timely, accurately and reliably provision UNE Loop hot cuts on a reasonable, commercial basis.

10. Indeed, despite the persistent efforts of AT&T since June 1999 -- and even earlier for other CLECs -- SWBT still does not provision UNE Loop hot cuts on a commercially reasonable basis that satisfies its statutory obligations or the needs of AT&T and other CLECs. The central problem -- as demonstrated both by jointly reconciled provisioning data and SWBT's own reported performance data -- is that systemic defects in SWBT's hot cut provisioning processes cause substantial numbers of CLECs' customers to unexpectedly lose service for extended periods and otherwise prevent SWBT from performing loop cutovers in a timely manner. These acknowledged flaws in SWBT's hot cut provisioning process -- coupled with SWBT's failure to provide non-discriminatory access to its OSS systems -- are presently precluding AT&T and all

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<sup>5</sup> On average, AT&T's unbundled loop orders involve XXXXXXXXXXXX lines per order.

other CLECs from attracting and maintaining customers and thereby denying them a meaningful opportunity to compete in the local exchange market.

11. A primary barrier to market entry is that SWBT's designated hot cut process for serving the small business market (as well as the residential market) -- i.e., its uncoordinated frame due time ("FDT") process -- remains in a pilot stage of development: unimplemented throughout most of Texas and distrusted by most CLECs. Moreover, despite the critical importance of the FDT process, SWBT concedes that it has not adopted any performance measures directly applicable to the FDT process and fails to submit in support of its application any commercial evidence demonstrating its ability to properly provision hot cuts using the FDT process.

12. SWBT's silence is not surprising since, as shown by AT&T's commercial experience, the FDT process is not commercially viable. Indeed, despite the very small volume of FDT orders AT&T has placed, SWBT concedes that its provisioning errors caused 53% and 33% of AT&T's customers to unexpectedly lose service on AT&T's orders placed in August and December. Moreover, those service outages lasted for prolonged periods. For example, on AT&T's December orders, the service outage extended, on average, for slightly more than 8 hours.

13. In the absence of a reliable process capable of supporting mass market entry, CLECs are forced to rely upon SWBT's other hot cut process -- its coordinated hot cut ("CHC") process -- which SWBT acknowledges is capacity constrained, more costly and more labor intensive. Worse still, the evidence is overwhelming that SWBT's CHC process is no more capable of provisioning hot cuts in an accurate, timely and reliable manner than is its FDT process.

14. Indeed, jointly reconciled provisioning data and SWBT's own reported performance data shows that, throughout the months of August through October -- the very period SWBT invites the Commission to scrutinize in evaluating SWBT's application -- SWBT has proven unable to provision CHC hot cuts at the "minimally acceptable" level required by the Commission to demonstrate compliance with the FTA.

Thus the evidence for that 3 month period shows that:

- up to 11.4% of AT&T's customers have suffered unexpected and prolonged loss of service due to SWBT's provisioning errors which, the evidence shows, are systemic and thus likely affect all other CLECs' hot cut orders;
- up to 4.8% of all CLECs' UNE loops that SWBT provisions (and up to 9.5% of AT&T's UNE loops) experience trouble within at least the first 30 days of installation and, most likely, substantially sooner; and
- up to 18% of the CHC hot cuts SWBT performs (and potentially a far greater percentage) are not completed within one hour.

15. Notably, the evidence of SWBT's deficient provisioning directly conflicts with SWBT's claim that its aggregate reported performance measure data demonstrates that it is providing CLECs with a meaningful opportunity to compete. One reason for that apparent conflict is that SWBT's performance measures fail to address fully the risk of substantial customer service outages on CHC hot cuts -- and SWBT simply ignores the evidence in the record that the risk is an undisputed reality. Yet another reason is that SWBT's reported hot cut performance data is completely untrustworthy -- as proven by an AT&T/SWBT joint reconciliation project which found that, through at least October (and possibly even through to today), SWBT's procedures for collecting and reporting data -- both for AT&T and all other CLECs -- were fundamentally flawed.

16. SWBT's demonstrated inability to provision hot cuts -- through either the FDT or CHC processes -- in an accurate, reliable and timely manner has a palpable, adverse impact on the present ability of AT&T (and all other CLECs) to market competitive, switch-based local services to Texas consumers. Moreover, the fact that SWBT is unable to adequately provision hot cuts today -- despite the relatively low volume of orders placed by CLECs -- renders the prospect of robust, irreversibly open competition in Texas a dim and distant goal.

17. Although the evidence of SWBT's failed UNE Loop hot cut provisioning is alone sufficient to deny SWBT's application, additional, substantial problems plague SWBT's offering of UNE Loops that provide further confirmation of SWBT's failure to satisfy its statutory obligations.

18. Thus, among other things, SWBT fails to provide non-discriminatory access to its OSS systems, as demonstrated by its own data and confirmed by the commercial experience of AT&T and other CLECs. First, as it concedes in its application, SWBT fails to uniformly provide CLECs with jeopardy notices whenever a confirmed hot cut installation due date is threatened, thereby preventing CLECs from timely informing their customers of potential delays and, with respect to the FDT process, exposing CLECs' customers to the risk of unnecessary service outages. Second, as demonstrated by its performance data -- but ignored by SWBT in its application -- SWBT's OSS systems have proven incapable of timely posting CLECs' completed orders to SWBT's legacy billing systems, thereby subjecting CLECs' new customers to continued (and incorrect) billing by SWBT and exposing them to the risk of double billing.

19. These issues outlined briefly above (as well as additional problems) are addressed in detail in the remainder of my declaration. Section II provides an overview of the FDT and CHC processes and the substantial risk of unexpected customer service outage each process poses if the established procedural steps are not properly followed. In addition, Section I reviews both SWBT's promotion of the FDT process as the "recommended" method for switch-based facilities providers to commercially service the small business markets (and the residential market) and the acknowledged limitations of the CHC process.

20. Section III proceeds to review the evidence in the record demonstrating that SWBT cannot provision UNE Loop hot cuts in an accurate, reliable and timely manner. In particular, Part A addresses SWBT's provisioning of FDT orders, discussing, among other things, AT&T's own experience with the FDT process which shows the process is not commercially viable. Part B, in turn, focuses on SWBT's CHC process and presents the undisputed commercial data -- mostly ignored by SWBT in its application -- evidencing SWBT's materially poor provisioning efforts and its anticompetitive impact on AT&T and other CLECs.

21. Section IV focuses on SWBT's failure to provide non-discriminatory access to its OSS systems, reviewing SWBT's failure to uniformly provide jeopardy notices and to timely process CLECs' completed orders.

22. In Section V, I address SWBT's claims with respect to its reported hot cut performance data and show that: (a) SWBT's reported data for AT&T and all CLECs lacks any integrity due to fundamental flaws in SWBT's procedures for collecting and reporting performance data which SWBT concedes existed throughout the August through October timeframe; (b) SWBT has failed to implement appropriate performance

measures on critical steps in the hot cut process and thus has failed to offer evidence demonstrating compliance with its statutory obligations; and (c) the conclusions reported by Telcordia Technologies ("Telcordia") with respect to SWBT's performance measures are unreliable due to the nature of Telcordia's limited review and failure to test SWBT's manual data collection processes.

23. In Section VI, I review Telcordia's testing of SWBT's OSS systems for UNE Loops and show that, contrary to Telcordia's conclusion that SWBT's OSS systems are operationally ready, Telcordia's testing confirmed that SWBT's provisioning of UNE Loops hot cuts is plagued by the same flaws which AT&T and other CLECs have encountered in their commercial experience.

24. In Section VII, I address SWBT's failure to provide non-discriminatory access to unbundled DS-1 loops and to loop and trunk combinations (known as enhanced extended loops or "EELs"). In particular, I discuss SWBT's efforts to prevent AT&T from swiftly and efficiently converting to unbundled network elements its embedded base of special access facilities used to provide local service. I also review other improper ordering requirements SWBT has implemented which prevent CLECs from efficiently ordering new DS-1s unbundled loops.

25. I conclude my declaration in Section VIII with a discussion of the deficiencies in SWBT's collocation offerings, which include the fact that all of the rates applicable to SWBT's Revised Physical and Virtual Collocation Tariffs have only been approved on an interim basis and thus offer no assurance that the Tariffs will comply with the FTA and the Commission's ruling.



## **II. OVERVIEW OF SWBT'S HOT CUT PROCESSES**

### **A. SWBT's Processes For Implementing Hot Cuts**

26. The hot cut process makes it possible to transfer a customer's service from SWBT to a CLEC and allows the customer to retain its existing telephone number and any hard-wired facilities used by the SWBT central office serving the customer. Generally, for an existing SWBT customer switching service to a CLEC, the process involves two separate changes that must be made at approximately the same time: (1) the manual transfer of the customer's loop such that it terminates on the CLEC's switch rather than at SWBT's switch (the loop cut); and (2) the software changes to permit the appropriate routing of inbound calls to the end user based upon the end user's existing telephone number, and the disconnection of the SWBT switch translations (the porting of the telephone number).<sup>6</sup>

27. Because both of these steps are performed on a loop over which the customer is currently receiving service, the process is known as a "hot cut." For that reason, if the two steps of the hot cut process are not performed in the proper sequence and in a coordinated manner between SWBT and the CLEC, service interruptions to the customer -- e.g., total loss of service or inability to receive incoming calls -- will occur. As the Commission has observed, proper coordination of the hot cut between the BOC and the CLEC is "critical because problems with the cutover could result in an extended service disruption for the customer." Bell Atlantic ¶ 291 n.925.

28. In connection with the porting of the telephone number, SWBT is implementing the FCC's Local Number Portability Order, CC Docket No. 95-116, using

Location Routing Number ("LRN"). LRN involves the use of a ten-digit number that identifies the recipient switch and location for the ported number. In order to implement LRN, a trigger on the SWBT central office switch serving the ported number is used to query an LNP database. The database, in turn, provides the LRN that is used to route the call to the appropriate switch and location.<sup>7</sup>

29. SWBT offers CLECs the ability to obtain hot cuts through two separate procedures: (a) an uncoordinated hot cut -- known as a Frame Due Time ("FDT") order; and (b) a coordinated hot cut -- known as a "CHC" order. As discussed below, there are a number of differences between these two procedures, which concern primarily the sequence in which the hot cut is effected and the degree of manual coordination required between SWBT and a CLEC on the day of the hot cut.

30. Preliminarily, however, it should be noted that SWBT has advocated its FDT process as the "preferred" method for serving the small business market -- i.e., AT&T's target market. Indeed, because of the degree of manual coordination required by the CHC process, SWBT has unequivocally stated that its CHC process is capacity constrained and that CLECs will need to use the FDT process in order to serve the targeted business market at commercial volumes.

31. Despite the difference in provisioning steps, the ordering process for both FDT and CHC hot cuts works in a similar fashion. Thus, AT&T orders both types of hot cuts by electronically submitting a local service request ("LSR") to SWBT

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<sup>6</sup> The two processes involved in the hot cuts SWBT offers are endemic to all loop cuts with number porting. See, e.g., Bell Atlantic ¶ 291 n.925.

<sup>7</sup> See generally Affidavit of Gary A. Fleming, submitted in support of SWBT's Section 271 application, ¶¶ 12, 24.

using SWBT's proprietary ordering interface, known as LSR EXchange ("LEX"). Among other things, SWBT requires AT&T to indicate on the LSR the preferred date and time for the hot cut to commence.<sup>8</sup> If the LSR is properly completed, it should, theoretically, pass each of SWBT's order editing and order generation systems -- e.g., Local Access Service Request ("LASR"), Mechanical Order Generator ("MOG") and Service Order Retrieval and Distribution ("SORD") -- and eventually result in the creation of internal service orders that are distributed to SWBT's backend, legacy systems for execution. In addition, once the internal service orders have been distributed by SORD, SWBT's systems should electronically return to AT&T a firm order confirmation ("FOC"), identifying, among other things, the scheduled date and time for the hot cut.

32. One difference in the processing of FDT and CHC orders, however, is that FDT orders are supposed to electronically flow through SWBT's OSS systems, whereas CHC orders are not "MOG-eligible" and, therefore, by design, require manual processing by SWBT's staff in its Local Service Center ("LSC").<sup>9</sup> The difference in processing arises because SWBT's systems cannot electronically confirm requested frame due times on CHC orders, but rather require SWBT's LSC to contact SWBT's Local Operations Center ("LOC") to determine the availability of SWBT frame technicians at the requested cut time.<sup>10</sup> Thus, for each CHC order, a SWBT LSC staff

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<sup>8</sup> Accord Affidavit of Candy R. Conway, submitted in support of SWBT's Section 271 application ("Conway Aff."), ¶¶ 76, 78.

<sup>9</sup> See Affidavit of Elizabeth A. Ham, submitted in support of SWBT's Section 271 application ("Ham Aff."), ¶ 134.

<sup>10</sup> See Conway Aff. ¶ 78.

member must manually review and -- where an adjustment in due date or time is required because of SWBT resource constraints -- enter the order into SORD for a different due time than AT&T originally requested.

**B. The Agreed Provisioning Processes**

33. Because of its prior negative experience with other BOCs (such as Bell Atlantic) in conducting hot cuts and because of the labor intensive nature of the hot cut process -- and the consequent potential for customer affecting provisioning errors -- AT&T believed it was essential to the successful execution of its hot cut orders that detailed process flows be created for both a pre-installation test procedure and the hot cut on the confirmed due date. At the time AT&T first began to order hot cuts in June, 1999, however, SWBT did not -- and even today, does not -- publish uniform procedures governing pre-installation testing or its CHC process.<sup>11</sup>

34. Accordingly, last Spring, AT&T asked SWBT (and SWBT agreed) to participate in negotiations which AT&T was then having with Pacific Bell to develop procedures for both pre-installation testing and the CHC process. By August, those negotiations resulted in AT&T and SWBT agreeing upon detailed, documented process

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<sup>11</sup> In contrast, SWBT eventually published an outline of the basic steps in its FDT process flows. See SWBT "Accessible Letter", No. CLEC99-092, dated July 15, 1999 [Conway Aff., Attach. J]. Notably, while Ms. Conway discusses in great detail (although not necessarily with great accuracy) the procedural steps SWBT has supposedly designed for the FDT and CHC processes (e.g., Conway Aff. ¶¶ 77, 86, 89) she fails to cite any published documentation of those steps apart from the above-noted Accessible Letter. In fact, it is my understanding that the pre-installation test procedures and CHC process flows that SWBT generally employs (as discussed in Ms. Conway's Affidavit), are based entirely on the procedures AT&T negotiated with SWBT.

flows, which Ms. Conway has included as Attachment K to her Affidavit filed in this proceeding.<sup>12</sup>

35. Set forth below is a brief review of the critical steps in the pre-installation, CHC and FDT processes. Unfortunately, as discussed in Section III, despite the importance of the process flows, AT&T's commercial experience has shown that SWBT consistently fails to follow the established procedures, with the result that AT&T's customers often experience unexpected and extended loss of service and unacceptably prolonged cutover intervals.

**1. Pre-Installation Test Procedures.**

36. The pre-installation test procedures are conducted on the day before the scheduled hot cut and are the same for CHC and FDT orders.<sup>13</sup> The procedures are designed to identify potential problems with a hot cut in order to permit SWBT and AT&T to either resolve the problem in a timely manner -- and thus permit the cut to proceed as scheduled -- or, if the problem cannot be cured by the due date, allow AT&T sufficient time to inform its customer that the cut must be delayed or cancelled.

37. In effect, the procedures serve as a safeguard (which AT&T's experience with SWBT and other BOCs has shown to be necessary) to prevent problems -- such as the absence of available facilities -- that should have been caught in SWBT's processing of AT&T's orders (e.g., by rejecting the order or, post-FOC, by issuing a

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<sup>12</sup> Notably, the process flow Ms. Conway has attached represents a recent, December 1999 version of the flow diagram which has evolved since AT&T's initial negotiations with SWBT. Nevertheless, the most critical steps in the process flow have remained stable since at least August.

<sup>13</sup> Because SWBT offers a standard installation period of 3 days on orders for 10 or less loops, SWBT represented that it could not conduct the testing sooner than one day before the installation date.

jeopardy notice) from impacting AT&T's customers. Set forth below is an overview of the critical steps conducted during the pre-installation test and the types of problems which the process is designed to avoid -- if SWBT properly adhered to the procedures:

(a) AT&T confirms with SWBT's LOC the scheduled date and time for the hot cut as originally provided in the FOC.

- This step is designed to identify possible errors arising during the ordering process and ensure that both companies have the same expectations as to when the cut will proceed. The obvious benefit of this step is to prevent the cut from being delayed -- e.g., because SWBT was not expecting to proceed at the designated cut time and thus had not performed appropriate pre-engineering work or scheduled the technicians necessary for the cut -- and thus avoid disrupting AT&T's staff as well as disappointing AT&T's customers, who must arrange their business schedule to accommodate the expected service outage that occurs during the hot cut.

(b) Once the cut schedule is confirmed, SWBT's LOC next confirms the order with its frame technician, who verifies the customer's presence on SWBT's main distribution frame ("MDF") and performs preliminary engineering work, such as laying certain cross-connects.

- The purpose of this step is several-fold. First, because SWBT employs "blind" FOCs -- i.e., it issues the FOC without first determining whether copper loop facilities are available -- it is essential that SWBT verify that the customer's loop is not being served by an integrated digital loop carrier<sup>14</sup> ("IDLC") or, if the loop is on an

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<sup>14</sup> Where a customer is being served by an IDLC, the customer's loop does not have an individual appearance on SWBT's MDF and thus cannot be cutover to AT&T's switch. Unless alternative copper facilities are available, the customer's order cannot proceed and AT&T must

IDLC, whether alternative cooper facilities can be made available on a timely basis. Timely identification of IDLC-served customers (and possible provisioning delays) avoids confusion on the scheduled cut date and allows AT&T time to make alternative scheduling arrangements with its customers, if necessary.<sup>15</sup>

- In addition, this test step is also designed to identify any technical problems that a customer may currently have with the telephone service being delivered by SWBT. Identification -- and resolution -- of these problems before the cutover allows the hot cut to proceed smoothly and prevents AT&T from being blamed by its customer for unexpected service outages or continuing poor service caused by pre-existing, SWBT-related service problems which SWBT could have (but failed to) cure.

- Furthermore, by requiring that appropriate pre-engineering work be performed in advance of the cut, this test step affords SWBT's technicians time to install the necessary cross-connects with appropriate care and diligence and thus avoids

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either request a new loop or lose the customer. Conversely, where alternative facilities are available, early identification (and resolution) of IDLC issues is critical because, under a newly announced policy, SWBT has stated that any hot cut requiring fieldwork on the date of installation -- which would include loops served by an IDLC -- will no longer qualify as a CHC hot cut and SWBT will only commit to complete the loop cutover by the end of the business day -- rather than at the confirmed cut time set forth in the FOC. See Affidavit of Terry R. Hoeven, sworn to Dec. 14, 1999, submitted on behalf of SWBT in TPUC Project No. 16251, at 5 [SWBT Appendix submitted in support of its Section 271 application ("SWBT App.") C at Tab 2004]. Notably, SWBT's refusal to confirm an installation time for orders requiring fieldwork poses a substantial problem for CLECs, since they can neither reasonably predict their staff requirements to provision the order or inform their customers as to when service will be interrupted.

<sup>15</sup> As noted above, this test essentially serves as a safeguard because, if the customer is served by an IDLC, SWBT should have issued a jeopardy notice alerting AT&T to the problem and the possible impact on the confirmed due date -- a notice that is especially critical in light of SWBT newly announced fieldwork policy. Unfortunately, as discussed below, AT&T's commercial experience has shown that SWBT often fails to issue a jeopardy notice, thereby making this pre-installation test procedure all the more important -- and SWBT's failure to perform it all the more threatening to AT&T's ability to service its customers.

installation delays -- and possibly, unexpected service outages -- on the scheduled cut date.

(c) Upon the technician confirming that the cut can proceed, SWBT's LOC remotely tests the customer's circuit facility assignment<sup>16</sup> ("CFA") on AT&T's collocation frame to confirm (1) that dial tone exists and (2) that the CFA shows the same telephone number for the customer as does AT&T's order.<sup>17</sup>

- The purpose of this test procedure is to prevent potential delay in the start of the hot cut by ensuring that AT&T's pre-engineering work for the cutover has been successfully completed -- i.e., that the customer's CFA has been connected to AT&T's switch and the customer's translations properly programmed in the switch. Moreover, by ensuring that the telephone number for the customer's CFA is the same as the number on AT&T's order, the test procedure is designed to avoid SWBT's technicians connecting a customer's loop to the wrong CFA -- thereby causing the customer either to lose all service (e.g., if the loop is connected to a CFA unassociated with the customer) or to receive service at the wrong number (e.g., if a loop designated for voice service is connected to the CFA assigned to a fax line).

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<sup>16</sup> The CFA identifies the particular spot -- i.e., the lug and pin -- on AT&T's collocation frame that has been assigned to its new customer and to which SWBT's cross-connect must be attached. On AT&T's side of the collocation frame, the customer's CFA is connected (through various cross-connects and trunks) to AT&T's switch, which is programmed with the appropriate specific translations -- including telephone number and features -- for the customer.

<sup>17</sup> If these tests reveal a problem, SWBT must alert AT&T and together they must try to identify the source of the error and determine if it can be timely resolved. If the problem cannot be solved in time for the hot cut, either SWBT is supposed to send a jeopardy notice (if the problem is caused by SWBT) or AT&T will send a supplemental order to change the due date (if the problem is caused by AT&T).



38. Despite the obvious advantages of these test procedures in attempting to ensure the accurate and timely provisioning of hot cuts, SWBT refuses to perform the tests unless AT&T purchases its loop cross-connects with remote test equipment.<sup>18</sup> The additional costs imposed by the test equipment are substantial. For example, for a 2-wire copper loop, the cost of test equipment increases the monthly loop costs by approximately 6.5% to 10.2%.<sup>19</sup>

39. SWBT has attempted to justify its imposition of those costs by noting that the rates were approved by the TPUC. It is plain, however, that the TPUC intended the loop testing rates to apply only when a CLEC ordered unbundled loops in combination with UNE switching and wanted the ability to test the loops once they were installed. The rates were never intended to apply as part of SWBT's charge for the installation of a loop, since the costs of ensuring reliable loop installation must necessarily be included within the basic unbundled loop cost.<sup>20</sup> Thus, SWBT burdens both the CHC and FDT hot cut process with excessive, unwarranted costs.

## **2. The CHC Process.**

40. As noted above, the CHC process requires that provisioning personnel from AT&T and SWBT coordinate the timing of the cutover on the scheduled

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<sup>18</sup> Notably, if the cross-connects were purchased without remote test equipment, the same critical pre-installation tests could still be performed, except they would need to be conducted by the central office technician, rather than remotely by the LOC.

<sup>19</sup> The recurring rate for a 2-wire analog loop ranges between \$12.14 to \$18.98, and the addition of test equipment on the cross-connect adds \$1.24 per month to that charge. In contrast, there is no recurring rate for cross-connects purchased without test equipment. See TPUC Arbitration Awards, TPUC Docket Nos. 16189 et al., dated Dec. 19, 1997, Appendix B at 1 [SWBT App. F at Tab 17].

due date and thus is intended to permit AT&T to exercise more control over the hot cut process. The critical steps in the process are as follows:

(a) On the due date, AT&T must call SWBT's LOC within 30 minutes of the scheduled frame due time and authorize SWBT to proceed with the cut.

- By requiring SWBT to await authorization from AT&T before beginning the cut, this process step allows AT&T the flexibility to delay a cut in the event its customer requests a change to accommodate its business schedule.<sup>21</sup> SWBT's compliance with this authorization procedure is essential for the CHC process because the start of a hot cut immediately places a customer out of service. Conversely, if SWBT fails to timely proceed with the cut after receiving authorization, the delay will unacceptably prolong the cutover period.

(b) After receiving authorization, SWBT proceeds with the hot cut and must notify AT&T, within 60 minutes of the authorized cut start, that the cut has been completed. Once notified that the cut is complete, AT&T ports the customer's number by sending its "activate" message to the NPAC and then conducts test calls to determine if the provisioning succeeded.

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<sup>20</sup> Indeed, imposition of remote test equipment costs is particularly unreasonable because, once the loop is cutover, AT&T has no continuing need for the equipment since it only permits SWBT to test the loops -- not AT&T.

<sup>21</sup> Notably, this process step would be less important if SWBT was able to timely process a supplemental order from AT&T requesting a change in cut time. However, as discussed below, SWBT's ordering systems are not capable of processing supplemental orders on an electronic "flow-through" basis once SWBT's internal service orders have been created and instead require manual intervention. See Ham Aff. ¶ 209. As AT&T's experience has shown, the delays resulting from such manual intervention have caused supplemental orders not to be processed by the hot cut due date and, worse still, because SWBT has failed to follow the CHC procedures, cuts have proceeded without authorization, causing AT&T's customers to unexpectedly lose service.

- By delaying the porting of a customer's number until after SWBT confirms that the cut is complete, this process step avoids the possible premature porting of a number (and associated problems with re-porting the number to SWBT) in the event that the cutover encounters unforeseen problems. At the same time, notification by SWBT of the completion of the hot cut within the 60 minute cut window is essential for AT&T's customer to receive service in a timely manner. Thus, delays in notice beyond the 60 minute window unacceptably prolong the installation period. In addition, if SWBT has completed the cut but delayed notifying AT&T, the customer will be unable to receive incoming calls throughout the entire period of delay.

(c) If AT&T determines (within one hour) that the hot cut was successful, it accepts the hot cut from SWBT, which then records the service as completed. However, if AT&T discovers a problem, it notifies SWBT, which must then keep the service order open and work to resolve the problem until either provisioning is successful or AT&T determines that the severity of the problem requires the customer to be temporarily returned to SWBT.<sup>22</sup>

- The obvious advantage of this step is that it permits AT&T to test whether the hot cut has been successful and, if not, to obtain SWBT's immediate assistance in resolving any provisioning errors. SWBT's timely and efficient resolution of provisioning errors is, of course, essential to minimize the period of unexpected service outage experienced by AT&T's customer.

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<sup>22</sup> Yet a third scenario can arise if AT&T is unable to determine after the hot cut whether provisioning was successful. In that situation, AT&T has until noon of the following day to make an assessment. If AT&T does not identify a problem within that period, SWBT will close the service order. If a problem is identified, however, SWBT must work to solve the problem as discussed above.

**3. The FDT Process.**

41. SWBT offers its FDT uncoordinated hot cut process for installations involving less than 20 loops and a single end user. Compared with the CHC process, the FDT process is supposed to require little coordination between SWBT and a CLEC. Thus, SWBT touts the FDT process as a far simpler and less labor intensive -- and accordingly, a less costly and more efficient and potentially error-free -- process.

42. According to SWBT's FDT process flows, the FDT process is supposed to work generally as follows:<sup>23</sup>

(a) A CLEC orders an FDT hot cut by submitting an LSR requesting the FDT process and indicating a desired frame due time -- i.e., the date and time when the loop cut should begin.

(b) Upon the frame due time, two steps are supposed to take place simultaneously -- although without prior coordination: (1) the CLEC sends its "activate" message to the NPAC, which begins the number port; and (2) SWBT begins the loop cut.<sup>24</sup>

(c) Although SWBT's process flows guarantees that "[a]ll steps of the order should be completed within 60 minutes of the FDT", SWBT has represented to AT&T that the FDT hot cut should be completed within 30 minutes.<sup>25</sup>

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<sup>23</sup> See SWBT's FDT process flows [Conway Aff., Attach. J].

<sup>24</sup> In her affidavit, Ms. Conway incorrectly states that, under the FDT process, SWBT first performs the loop cutover and then calls the CLEC, who proceeds to activate the NPAC. Conway Aff. ¶ 87. Ms. Conway's description, however, is plainly contradicted by SWBT's own published process flow and is also contrary to AT&T's experience with the FDT process.

<sup>25</sup> See SWBT's FDT process flow diagram at 2 [Conway Aff., Attach. J]. Indeed, Ms. Conway confirms in her affidavit that SWBT is supposed to complete the loop cutover under the FDT process within 30 minutes. Conway Aff. ¶ 86.

43. Although requiring considerably less coordination than the CHC process, the simplicity of the FDT process poses its own significant risks to the successful cutover of a customer. Thus, like the CHC process, an early cut will place AT&T's customer immediately out of service. However, unlike the CHC process, because SWBT need not wait for authorization to begin the cut, the risk of an early cut (due perhaps to SWBT's inability to timely process supplemental orders) is magnified. Conversely, because AT&T is required to port the customer's number at the start of a cut (unlike the CHC process), if SWBT delays starting the cut, AT&T's customer will also be placed out of service. Similarly, a service outage will occur if SWBT fails to issue a jeopardy notice informing AT&T that the loop cutover cannot proceed (due perhaps to a facilities issue), since AT&T will not have any notice to delay porting the customer's number.

**C. SWBT Contends That the FDT Process Should Be Used to Provision AT&T's Targeted Business Customers**

44. Because the CHC process requires "a high level of manual coordination" (Conway Aff. ¶ 92), SWBT has actively promoted the supposedly more streamlined FDT process to AT&T -- and other CLECs<sup>26</sup> -- over the CHC process. As Ms. Conway acknowledges "SWBT recommends the use of the CHC process when 20 or more UNE loops are to be converted .... FDT should be used for small business and residence end users." *Id.* ¶ 79. Indeed, because SWBT contends that the FDT process is better suited to smaller scale hot cuts -- and conversely, that the CHC process is

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<sup>26</sup> For example, Gwen Rowling of ICG Communications testified before the TPUC that "Frame due time, we have been asked by Southwestern Bell to start using it. We didn't come to Bell to do it. They asked us to start doing it ...." Rowling Testimony, Nov. 2, 1999 TPUC Hearing Tr. at 267 [SWBT App. C at Tab 1968].

inappropriate for such customer conversions -- SWBT has stated that it will charge CLECs a premium if they select the CHC process.<sup>27</sup>

45. Moreover, SWBT has argued that the FDT process represents the only viable process to support AT&T's commercial use of hot cuts for its targeted market of primarily small business customers, whose service orders involve less than 20 loops. For example, when AT&T's CHC orders were being rejected by SWBT in June due to SWBT process errors in the assignment of frame due times,<sup>28</sup> SWBT wrote AT&T to "encourage" its use of the FDT process because it allowed "AT&T to determine the cut time and requires no coordination."<sup>29</sup> Similarly, when AT&T complained to SWBT that a large percentage of its CHC orders were not receiving the requested frame due time,<sup>30</sup> SWBT acknowledged that "with increasing demands for Coordinated Hot Cuts (CHC), it

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<sup>27</sup> The fee, which is supposedly intended to compensate SWBT for its staff time, is set at \$0 for the first half-hour and \$115 for each subsequent half-hour -- and, because SWBT is allowed one hour to complete the cutover, the fee will likely prove to be at least \$115. See SWBT's CLEC Handbook, "Unbundled Loop" at § 1.4.7 [<https://clec.sbc.com/clehb/restr/clehb/main>]. Notably, the fee, which is based on SWBT's FCC Access Tariff No. 73, has never been approved by the TPUC nor supported by an appropriate cost study based on TELRIC methodology. While SWBT has not yet assessed the fee against AT&T in connection with its CHC hot cut orders, its handbook makes clear that intends to impose the fee. SWBT's affiliate BOC, Pacific Bell, imposes a similar charge for CHC hot cuts, which amounts to approximately \$50 per loop.

<sup>28</sup> Specifically, SWBT was improperly rejecting AT&T's order when SWBT was unable to confirm the specific hot cut due date and time AT&T requested, rather than assigning the next available frame time. See Letter dated June 30, 1999 from Ms. De Young to Mr. Young, SWBT's Executive Director, AT&T Account Team, attached hereto as Attachment 1.

<sup>29</sup> See July 6, 1999 letter of SWBT's Mr. Hughes to Ms. DeYoung, at 1, attached as Attachment 2.

<sup>30</sup> Specifically, AT&T noted that SWBT was unable to confirm the requested frame due time on approximately 28% of AT&T's orders in July. See Email dated September 13, 1999 from Ms. DeYoung to SWBT's Mr. Hughes, attached hereto as Attachment 3.

is becoming difficult to meet the requested FDT” and suggested that AT&T employ the FDT process instead.<sup>31</sup>

46. SWBT representative, Mr. Royer, subsequently explained that because “the coordinated hot cut process is very manual on both sides”, SWBT had proposed using the FDT process since it “is a much less resource intensive process [and] is one way that we can mitigate this congestion that is involved in the coordinated hot cut issue because it doesn’t require the manual hand holding that the coordinated hot cut does.”<sup>32</sup>

47. Indeed, SWBT has acknowledged that, if AT&T doubles its current volume of CHC orders, AT&T may be unable to receive not only its desired frame due time, but worse still, its desired cut date because of capacity constraints affecting SWBT’s CHC procedure. SWBT, however, has confidently predicted to AT&T that “if you go to frame due time it alleviates” the CHC capacity constraints.<sup>33</sup>

48. Despite the claimed advantages of the FDT process, AT&T’s commercial experience, as discussed below, has shown that SWBT’s provisioning of hot cuts using the FDT process is seriously flawed and not commercially viable. At the same time, AT&T’s customers have suffered substantial unexpected service outages and unacceptably prolonged installation intervals using SWBT’s CHC hot cuts. Thus, neither the CHC process – which SWBT concedes is a costly, labor intensive and capacity

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<sup>31</sup> See Email dated September 20, 1999 from SWBT’s Mr. Royer to Ms. DeYoung, attached hereto as Attachment 4.

<sup>32</sup> Testimony of SWBT’s Mr. Royer, Nov. 2, 1999 TPUC Hearing Tr. at 171 [SWBT App. C at Tab 1968].

<sup>33</sup> Statement of SWBT’s Tom Hughes, TPUC Docket No. 21000, Sept. 21, 1999 Workshop (“Sept. 21 Dispute Workshop”), Tr. at 52, attached hereto as Attachment 5.

constrained process – nor the FDT process – which SWBT contends is the appropriate process to support AT&T’s commercial use of hot cuts – are capable of provisioning hot cuts in a timely, accurate and reliable manner at commercial volumes.

**III. SWBT FAILS TO SHOW THAT IT CAN PROVISION UNE LOOP HOT CUTS CONSISTENT WITH ITS SECTION 271 OBLIGATIONS**

49. To demonstrate compliance with its Section 271 obligations, SWBT must show that “it provisions hot cuts in sufficient quantities, at an acceptable level of quality, and with a minimum of service disruption, thereby offering competitors a meaningful opportunity to compete in the local exchange market.” Bell Atlantic ¶ 291.

50. In Bell Atlantic, the Commission specifically identified several criteria relevant to evaluating whether a BOC was providing non-discriminatory access to UNE Loop hot cuts. Thus, the Commission examined (a) the extent of unexpected service outages affecting hot cuts; (b) the extent of trouble reports filed in the period shortly after the cutover; and (c) the amount of time required to complete the cutover. See generally Bell Atlantic ¶¶ 292-303.<sup>34</sup>

51. In evaluating Bell Atlantic’s performance against these three criteria, the Commission found that evidence indicating (a) “that fewer than five percent of hot cuts resulted in service outages”; (b) “that fewer than two percent of hot cut lines had reported installation troubles”; and (c) “on-time hot cut performance at rates at or above 90 percent” constituted a “minimally acceptable showing” of checklist compliance. Id. ¶ 309.

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<sup>34</sup> Notably, the criteria articulated by the Commission are not new. Indeed, in its Louisiana II Order, the Commission stated that a BOC must show that it can provision UNE Loop hot cuts “within a reasonable timeframe”, in a “reliable fashion”, and with “a minimum of service disruption.” Louisiana II, ¶¶ 185-86, 192, 279.